

1/20

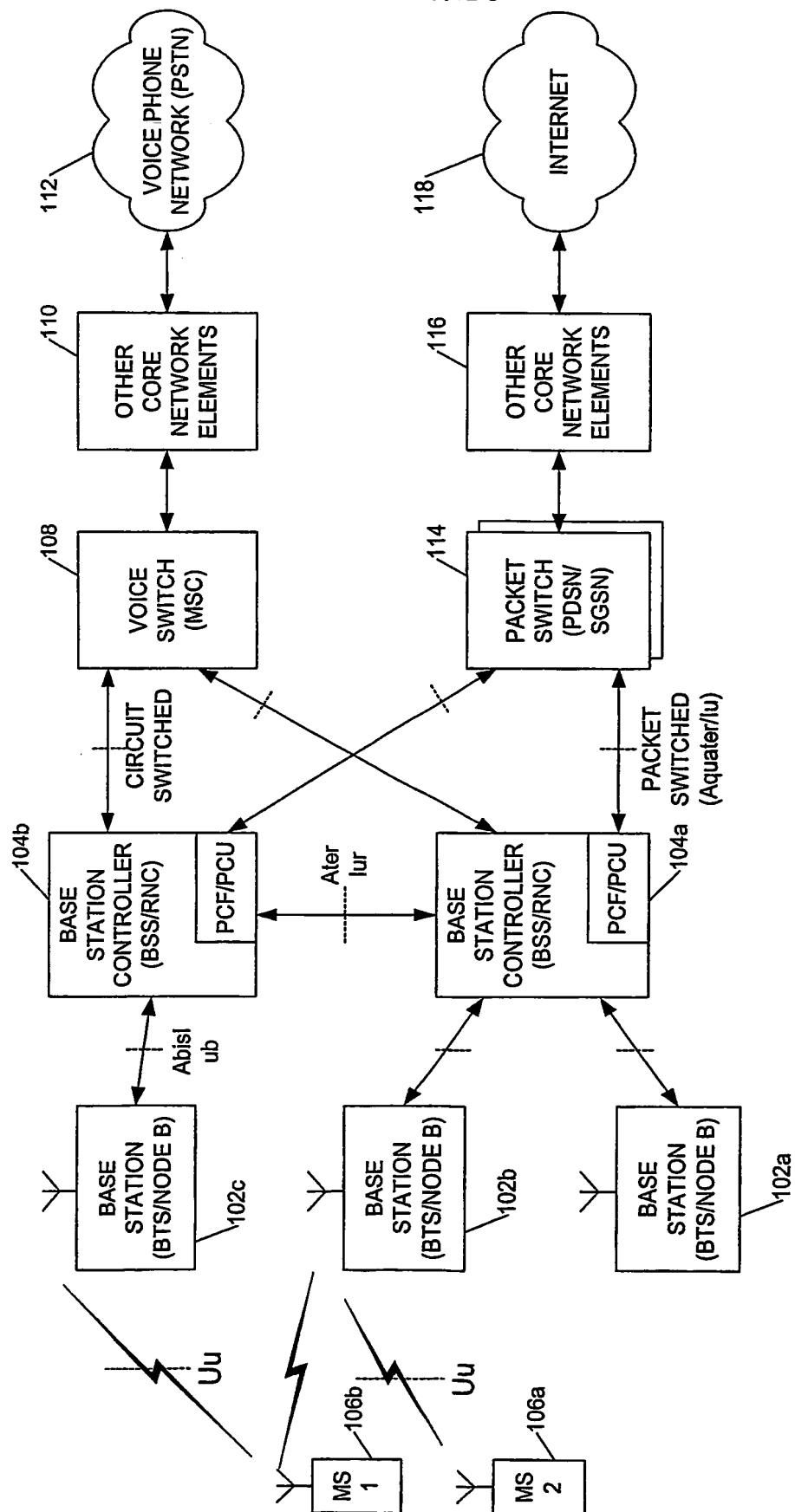
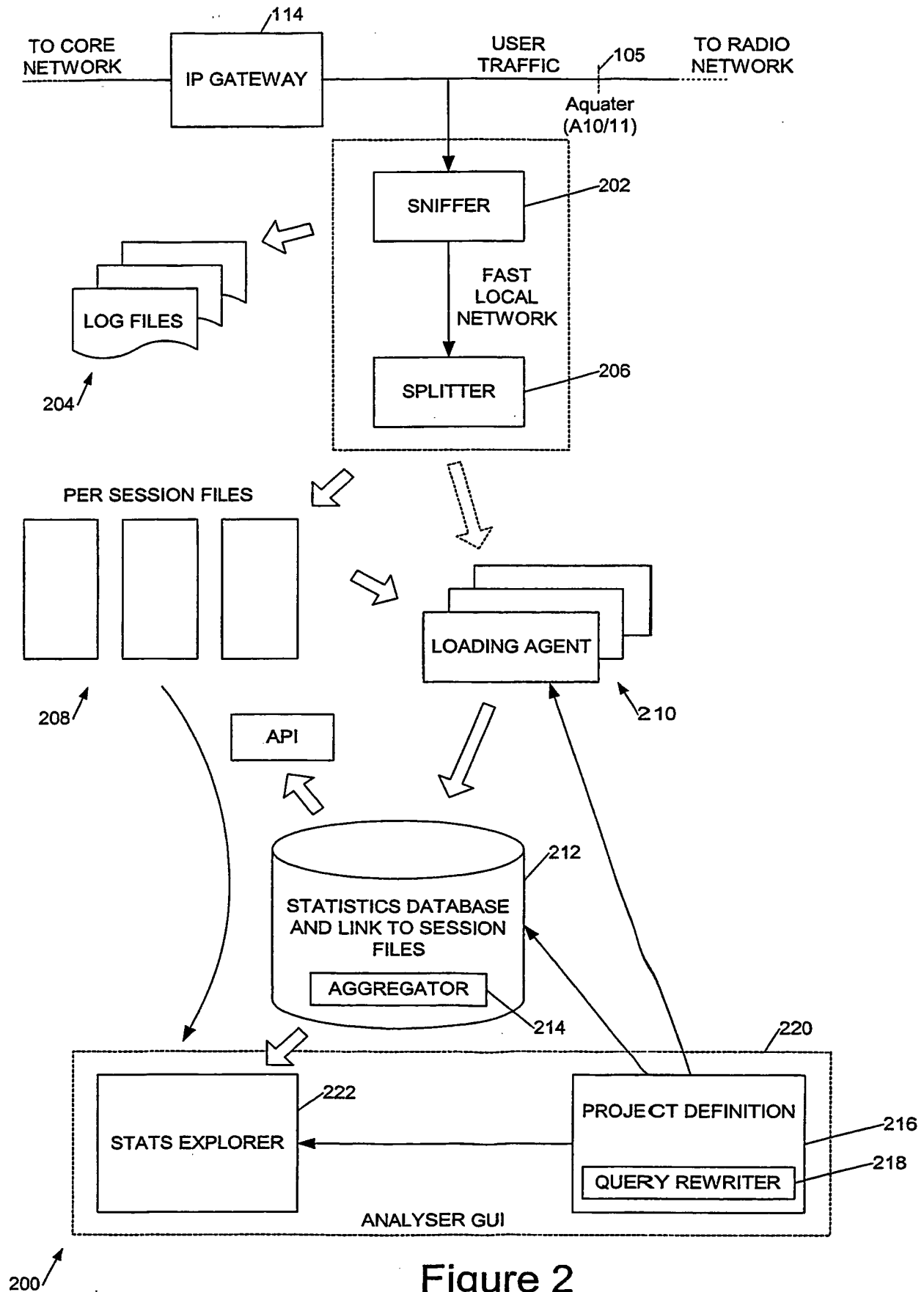


Figure 1

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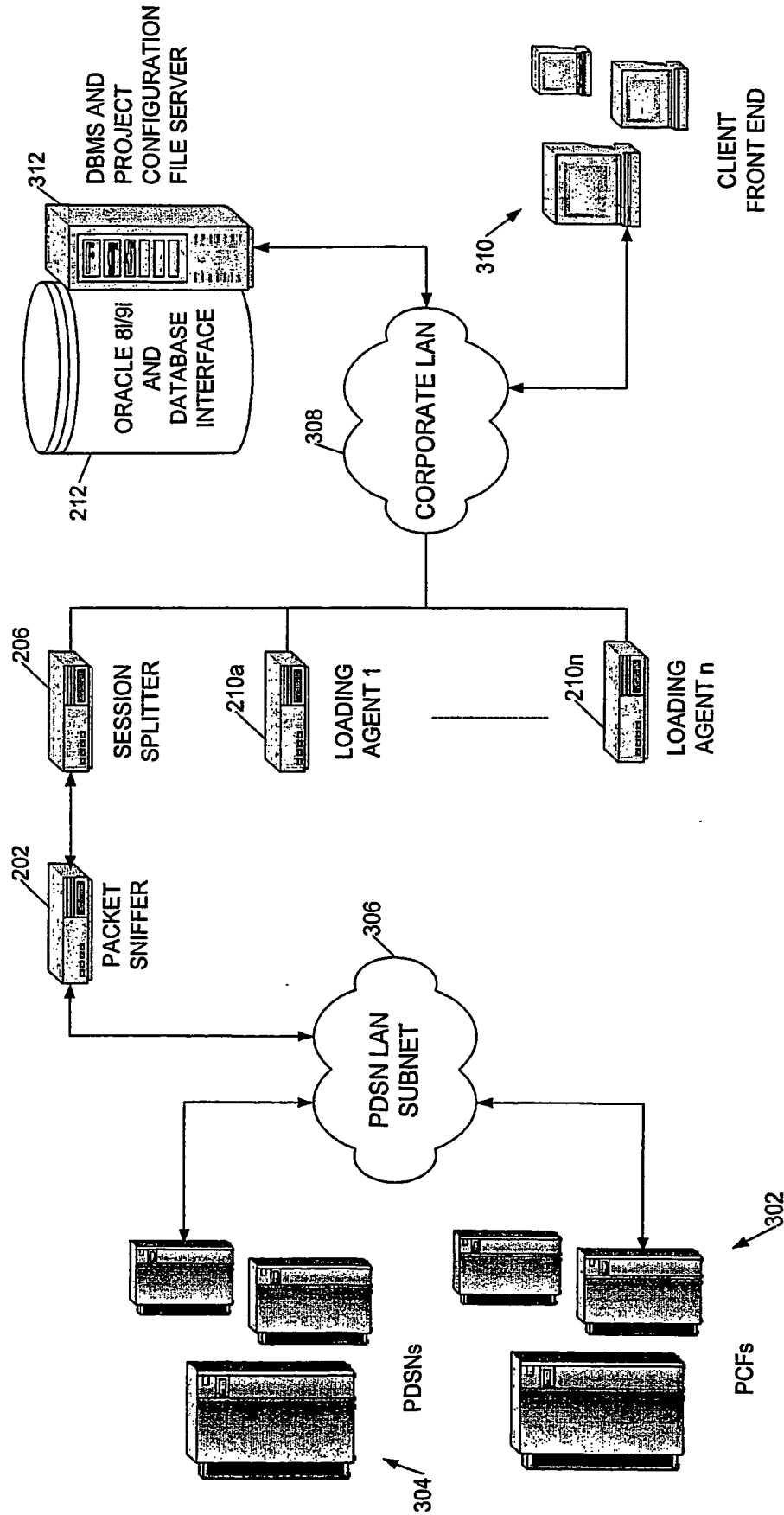


Figure 3

300

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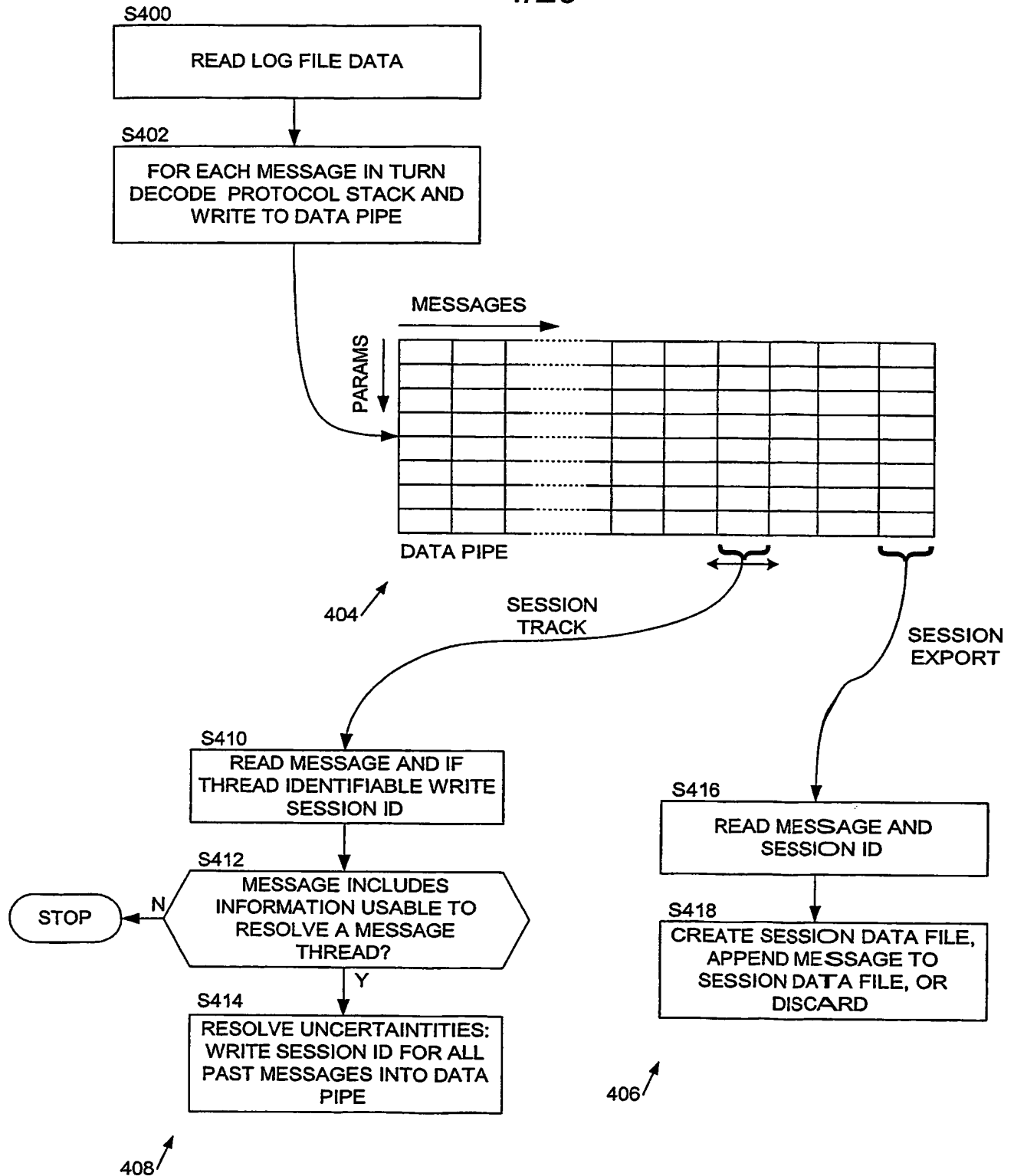


Figure 4

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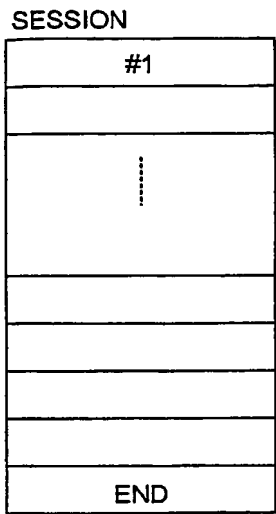


Figure 5a

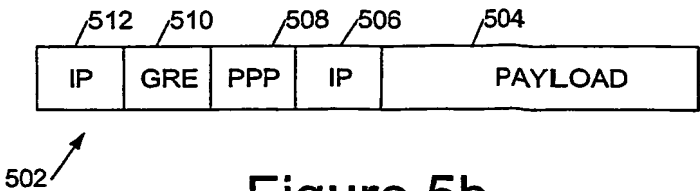


Figure 5b

DIM 1	DIM 2	STAT 1	STAT 2	STAT N
1	1			
1	2			
1	3			
2	1			
2	2			
2	3			

Figure 5e

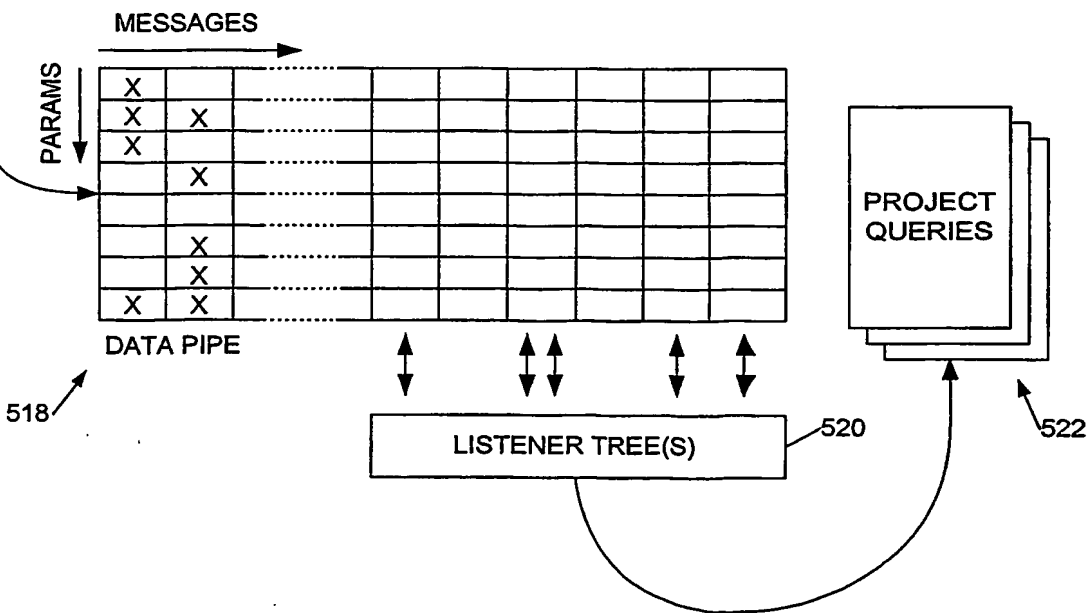
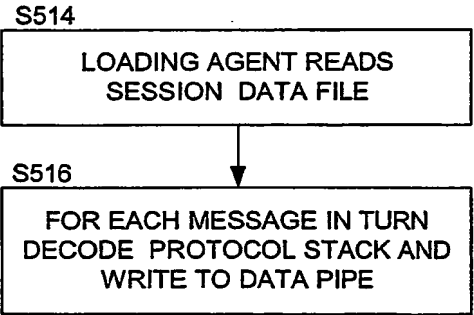


Figure 5c

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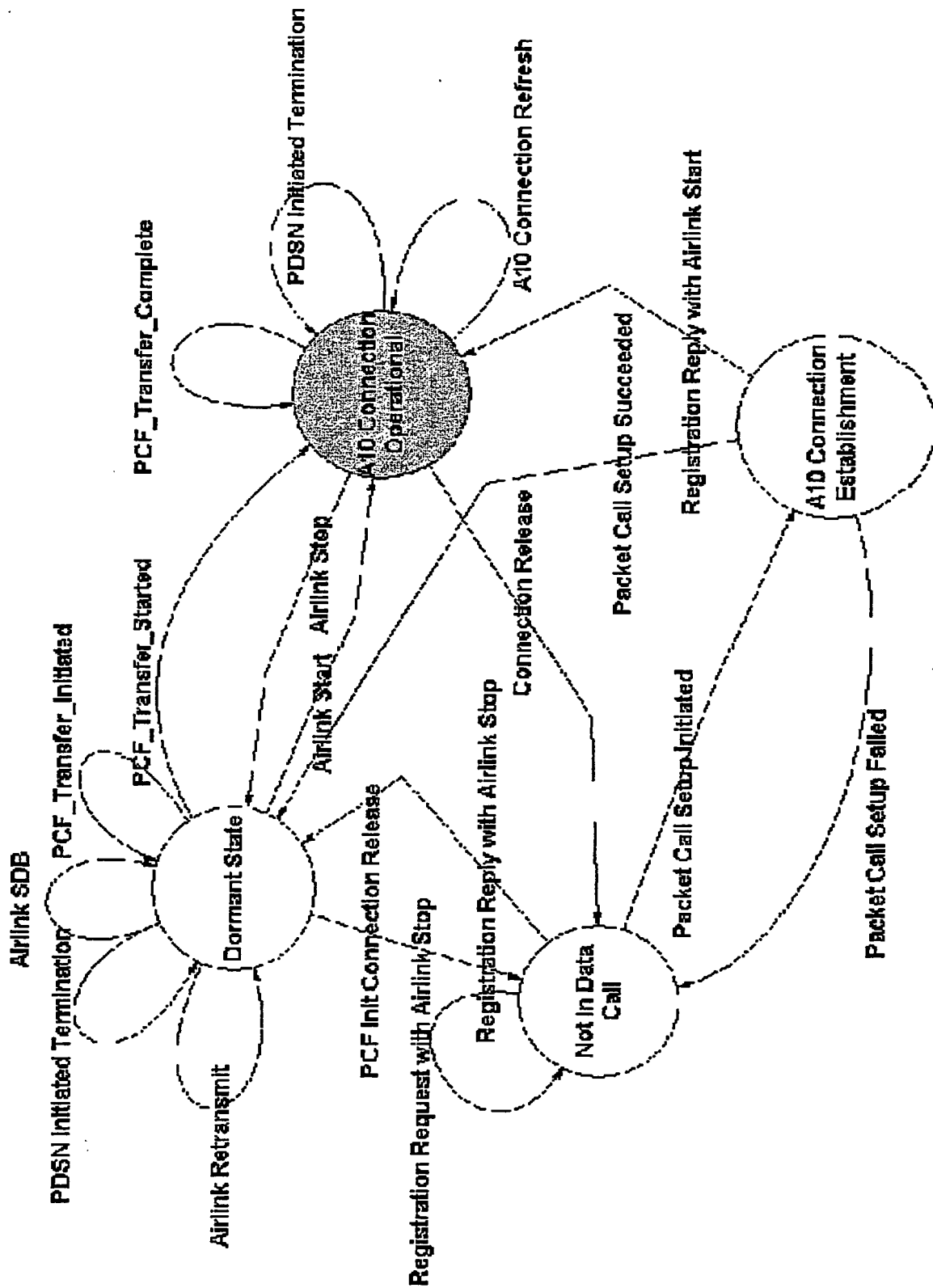


Figure 5d

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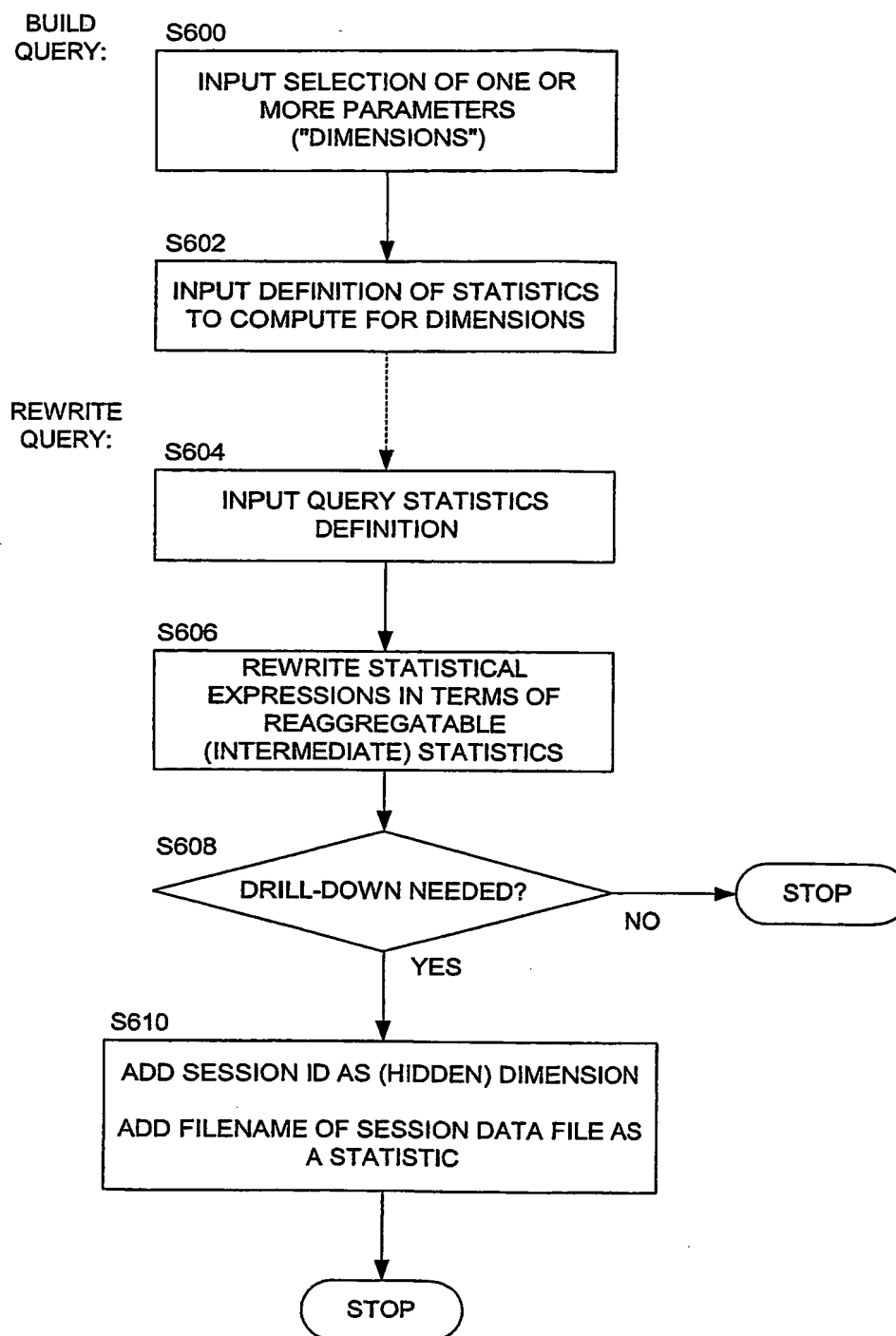


Figure 6

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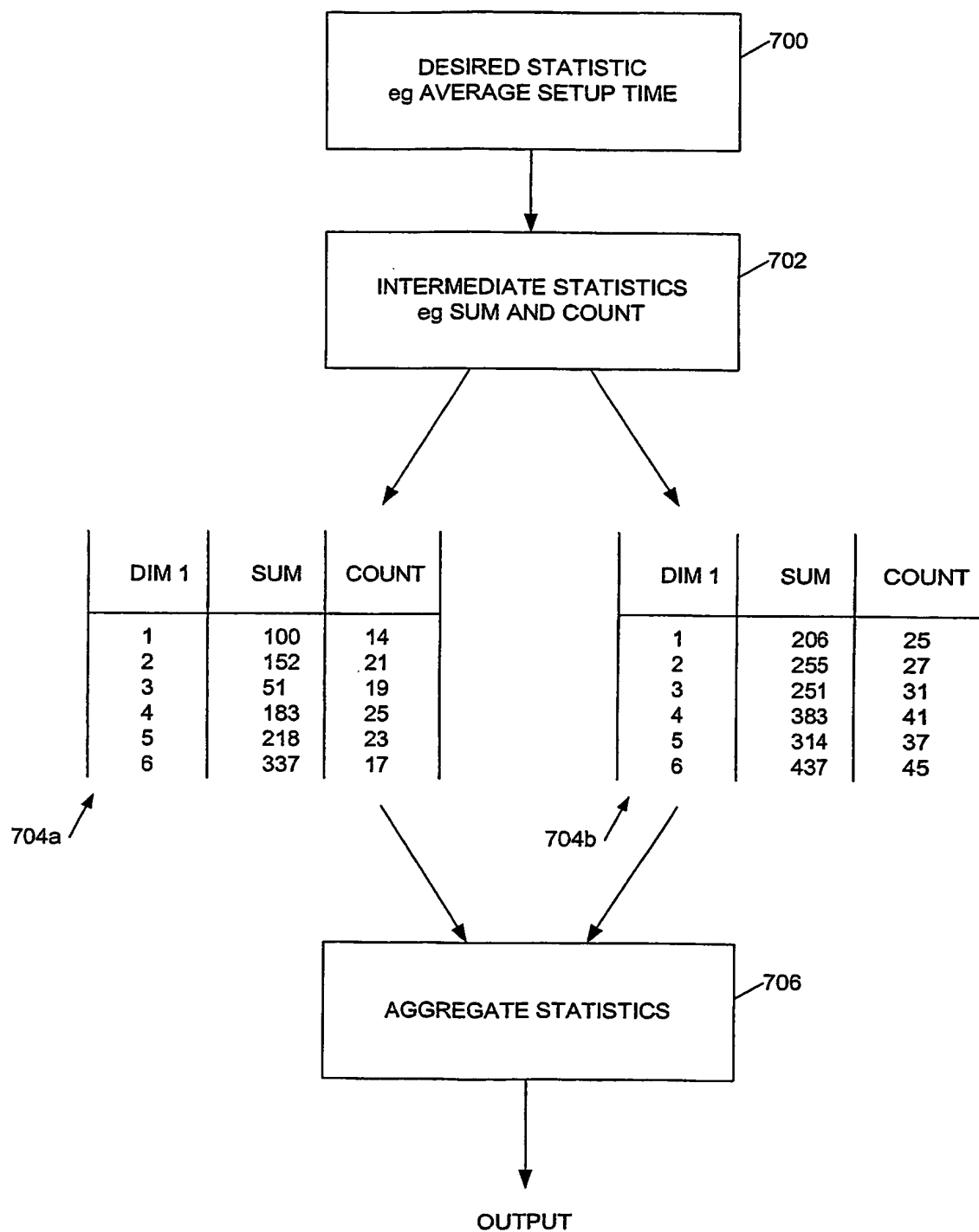


Figure 7



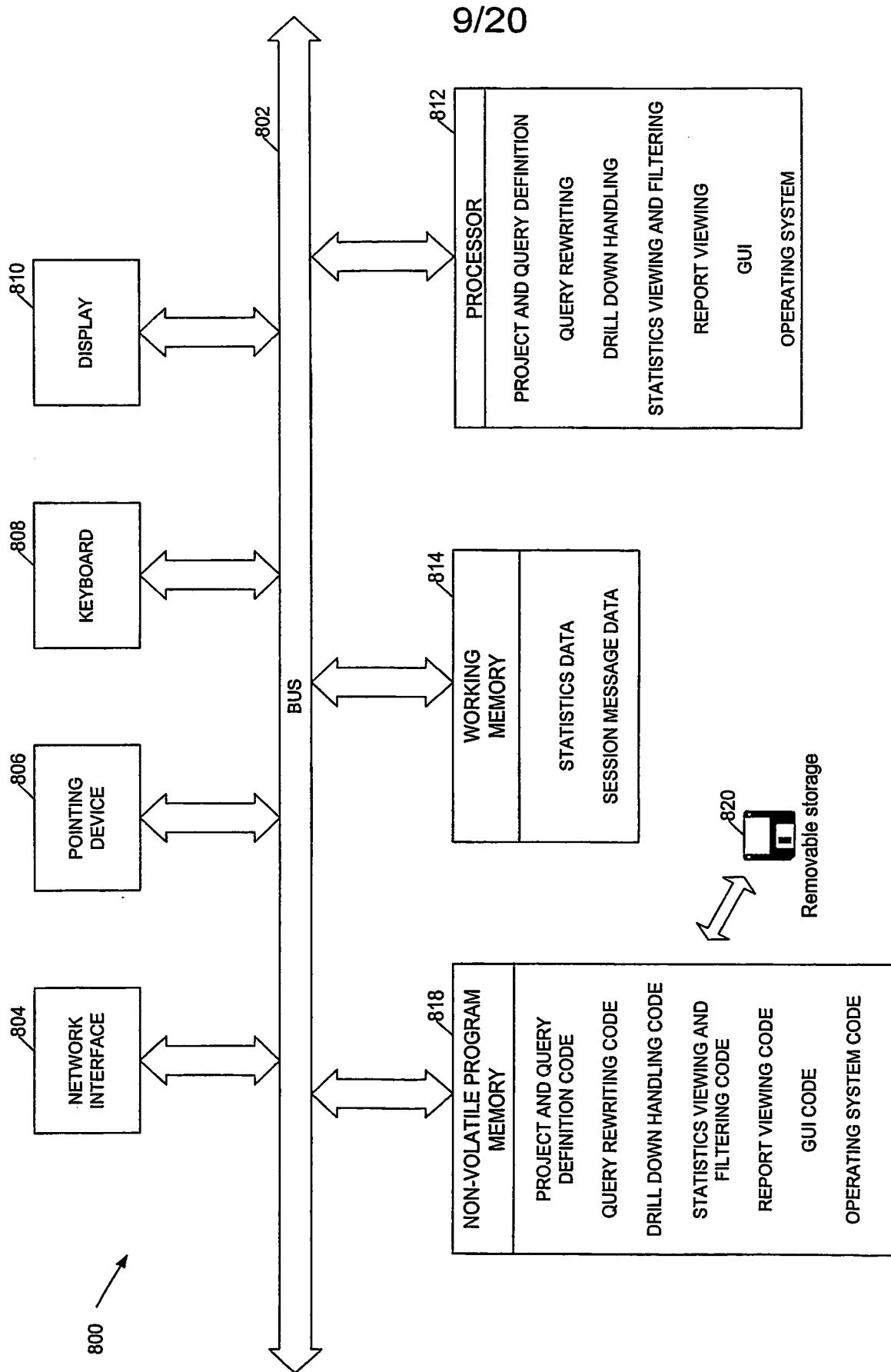


Figure 8

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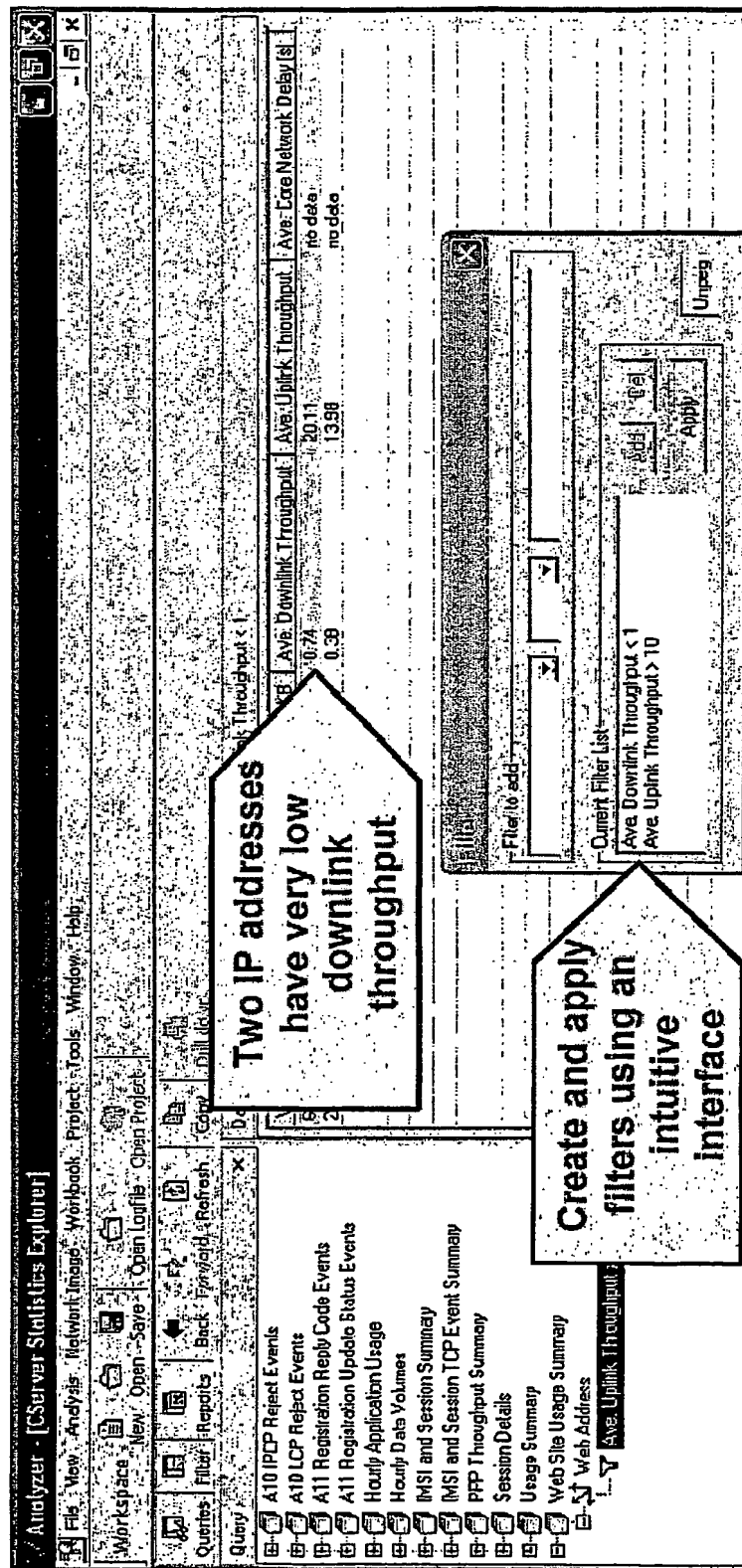
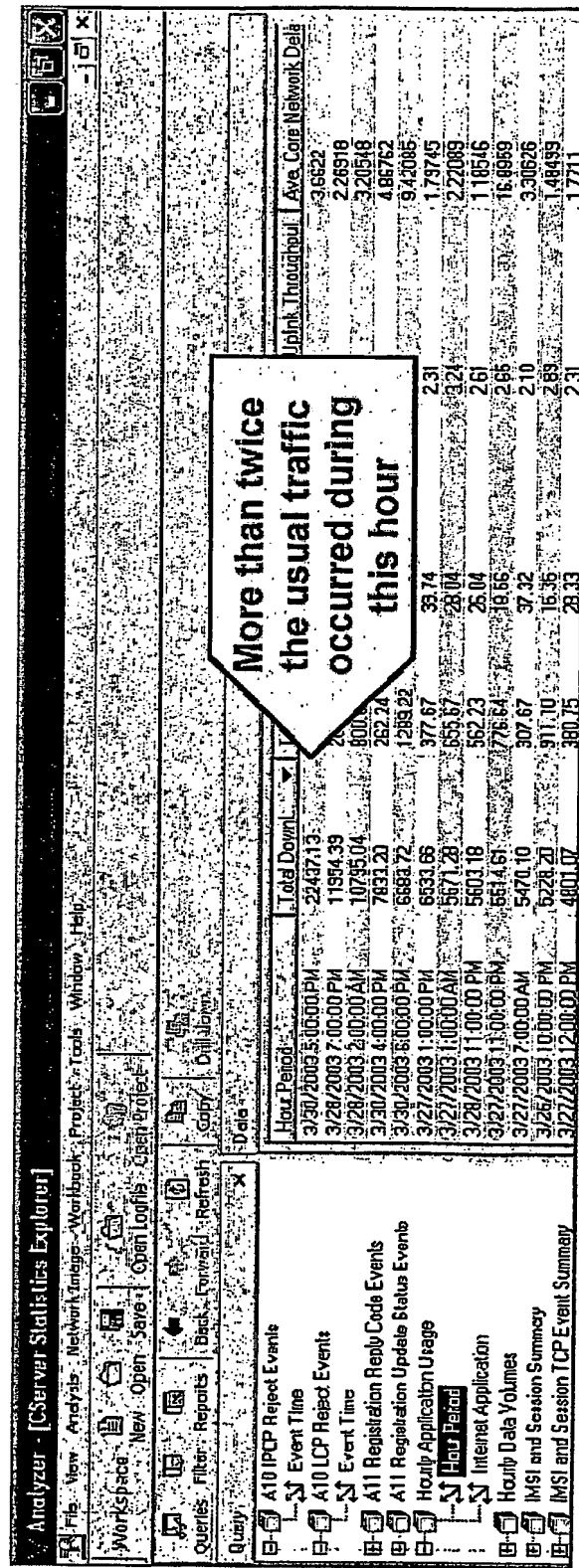


Figure 9

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## Figure 10

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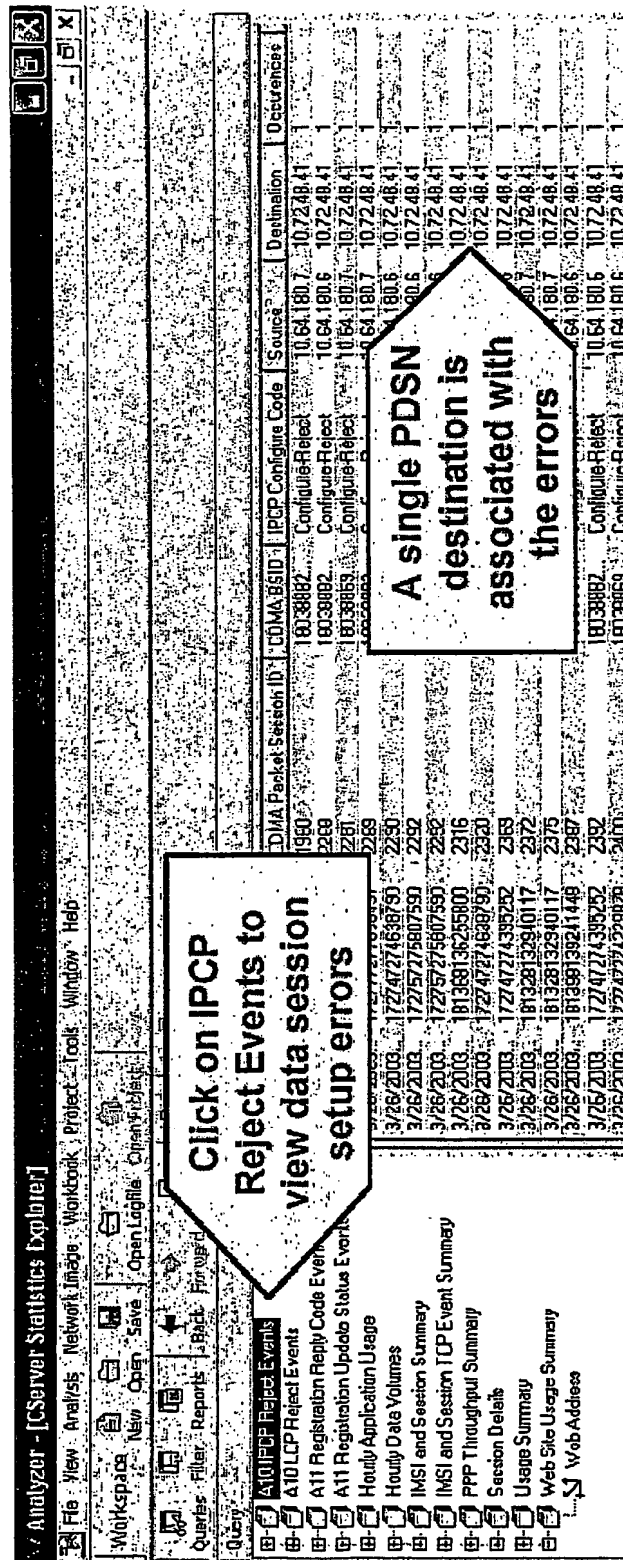


Figure 11

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Time	Origination Time	Packet Data Setup Time	PPP Setup Time	SCH Assignment Time	Total Setup Time
1:31:02 PM	1101	127	1097	4001	10179
1:35:23 PM	2102	141	1213	398	6359
2:02:52 PM	297	112	980	1121	10718
3:13:11 PM	5102	202	2003	906	8213

Figure 12

Metric	Goal	Actual
Average Echo	-14db or better	-7.21
Average Forward FER	2% or less	1.49
Average Reverse FER	2% or less	2.10
% Access Failure	0%	10.71%
% Successful Call Origination	>=90% for Mobile Originating or Mobile Terminating Calls	82.14%
% Dropped Calls (of calls that originated successfully)	2% or less	7.14%

Figure 13

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	# TCP Retransmissions	# TCP Aborts	# TCP Transmission Timeouts	# TCP Packets Lost
Total (27565 Samples)	2218	98	240	2040
8473724068 (124)	9	11	1	8
7149264650 (256)	27	8	7	23
8474775346 (13)	0	7	0	0
630660210 (70)	3	6	7	2
7208404403 (536)	83	6	6	81
2039813997 (269)	99	5	3	96

Figure 14

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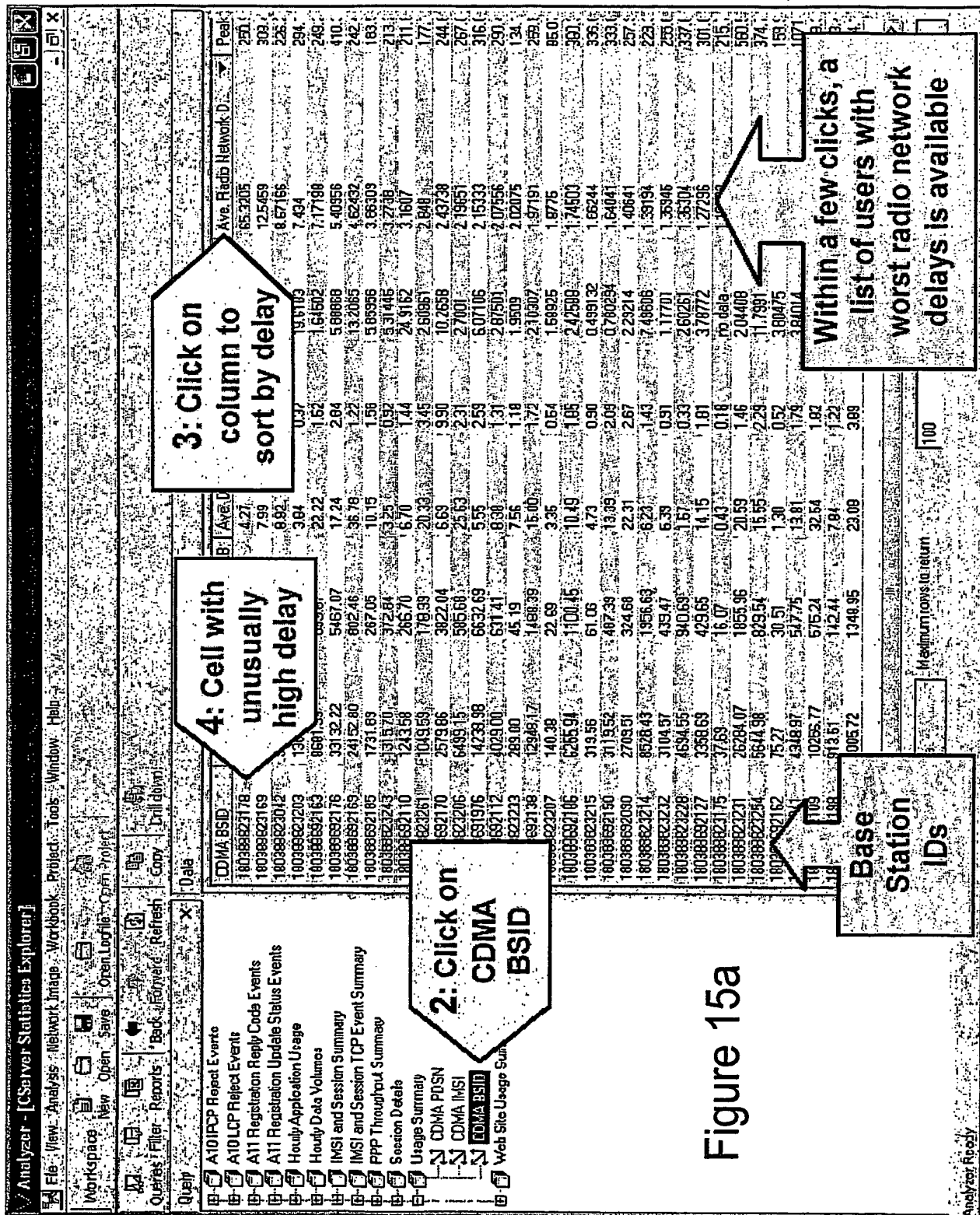


Figure 15a

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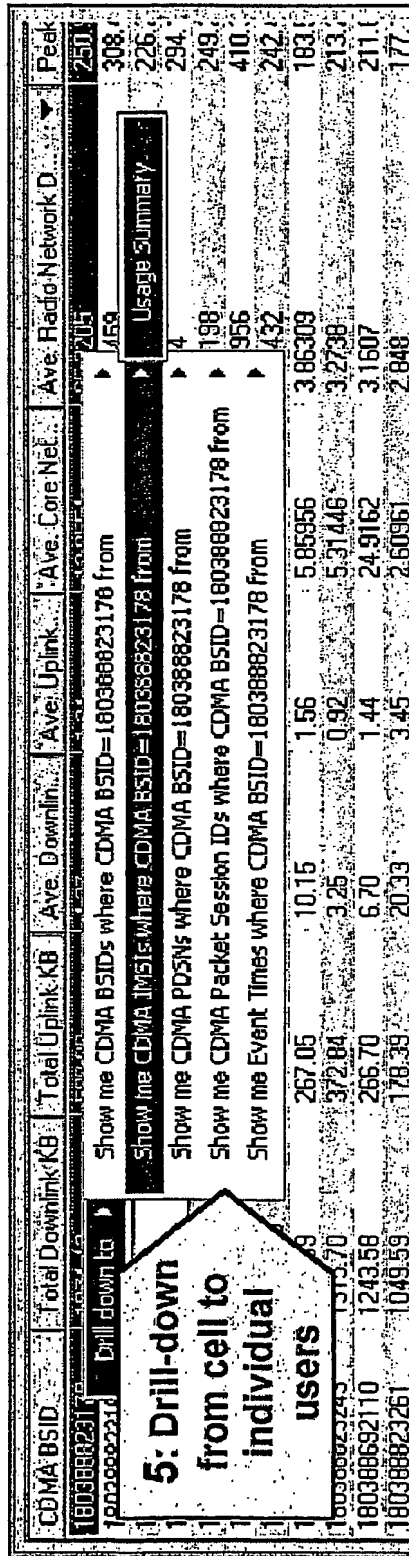


Figure 15b

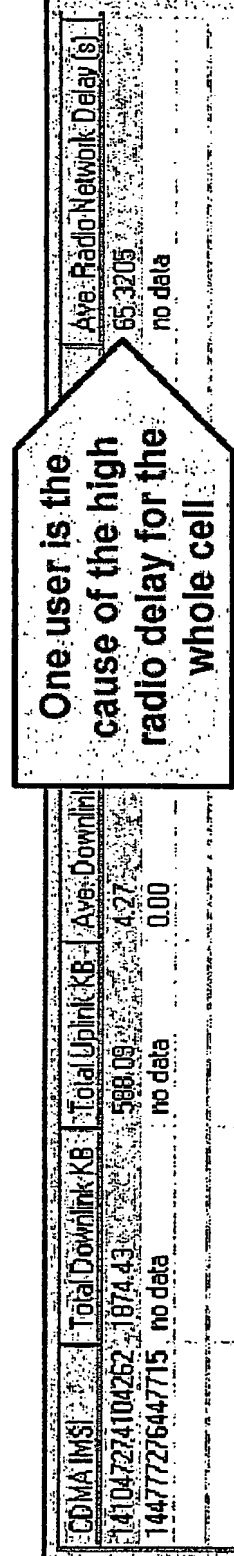


Figure 15c



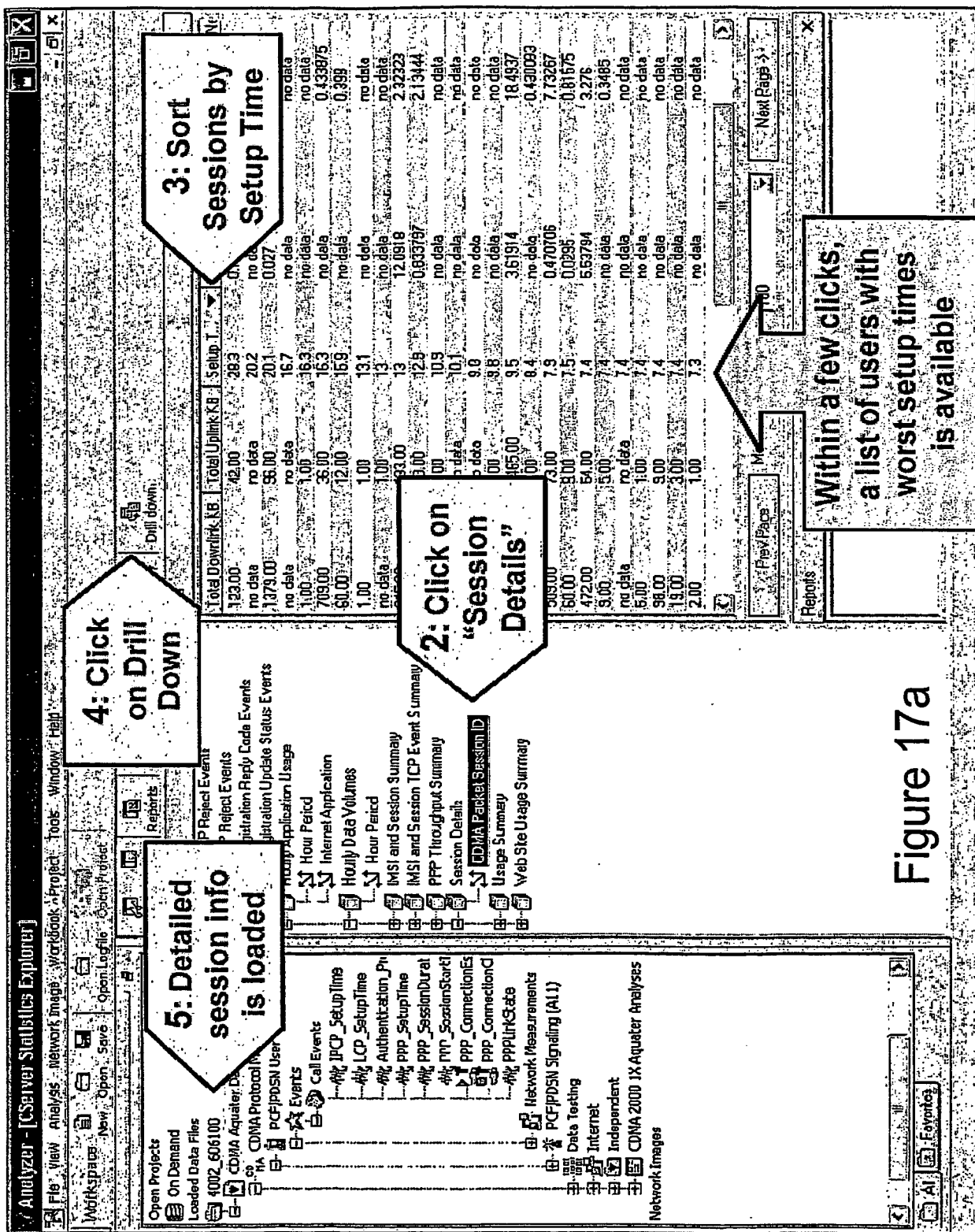
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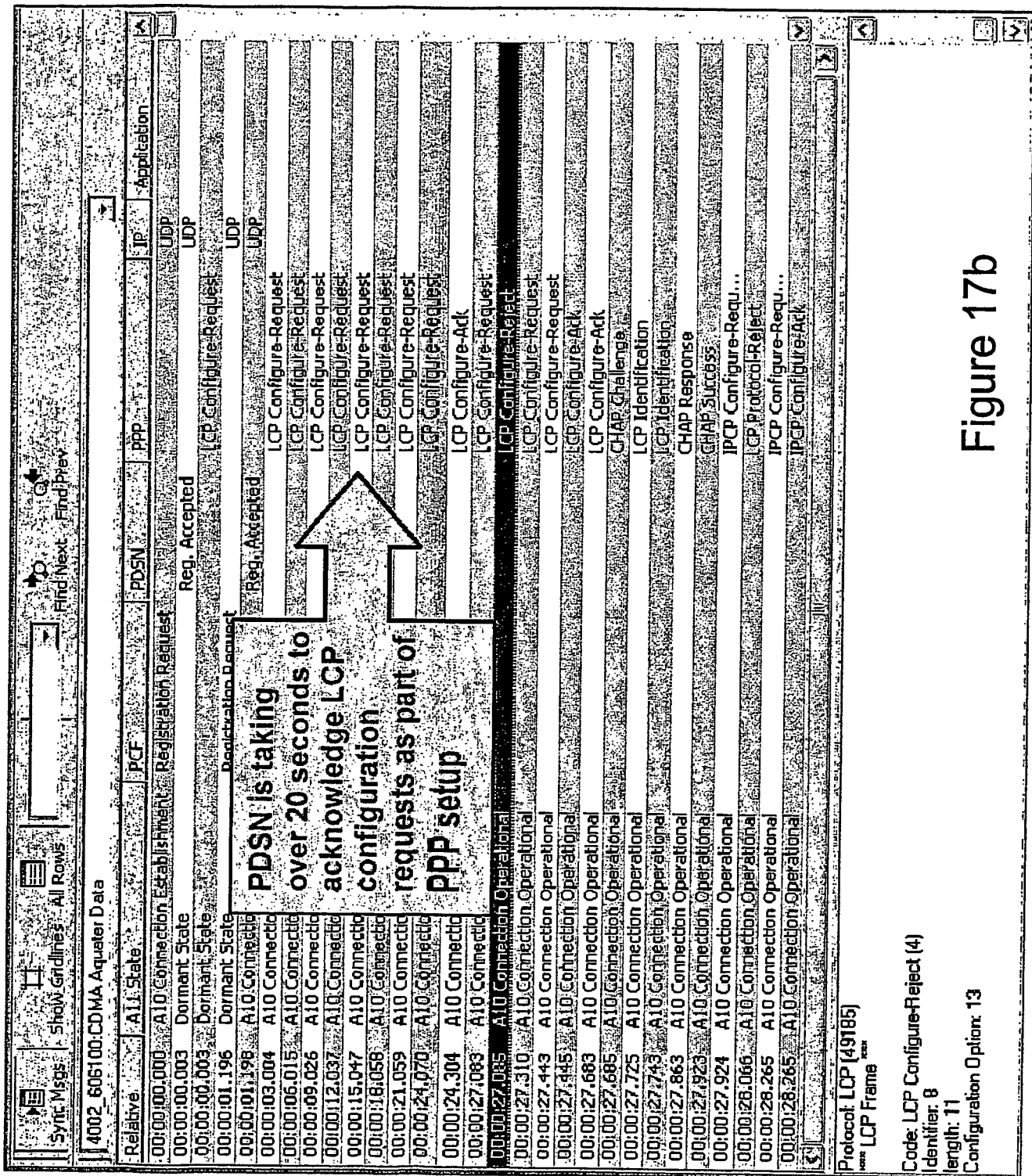
CDM...	CDMA IMSI	CDMA BSID	Application	Ave. Core Network Delay (s)	Ave. Radio Network Delay (s)	Occurrence
3192	172747274104262	180388823178	www-http	44.2309	138.074	2655
3889	172747274104262	180388823178	www-http	1.84581	36.431	4711
2266	172747274104262	180388823178	www-http	0.042	31.4985	2044
2526	172747274104262	180388823206	www-http	1.81822	2.61666	4659
2296	172747274104262	180388823178	www-http	1.36825	2.30018	3945
2760	172747274104262	180388823206	www-http	2.17648	1.86459	3224
2291	172747274104262	180388823178	pop3	no data	no data	119

Figure 15d

MIP Registration Reply Code		IMSI	User ID
Total (425 samples)	Error code from the Foreign Agent - unknown challenge	5902093549	sbostain01@sp
9/11/2002 3:01:17 PM (2)	Error code from the Foreign Agent - home agent port unreachable (ICMP error received)	8474452581	snelson88@sp
9/11/2002 2:58:55 PM (2)	Error code from the Foreign Agent - mobile node failed authentication	8474521587	mark2cool@sp
9/11/2002 2:59:38 PM (4)	Error code from the Foreign Agent - unknown challenge	8475309339	ilacobs66@sp
9/11/2002 3:00:43 PM (2)	Error code from the Foreign Agent - mobile node failed authentication	3128990163	5D42889D@hc
9/11/2002 3:00:42 PM (2)	Error code from the Foreign Agent - unknown challenge	3123990163	5D42889D@hc
9/11/2002 2:59:59 PM (2)	Error code from the Foreign Agent - stale challenge	3123999627	rdelker01@sp

Figure 16





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Msg No.	Relative	Offset	Message	PRC Cause	Layer 3	Events
000552	12:28:57.008	00:01:41.003	BCCH-BCH SystemInfoType1	000000		
000553	12:28:57.008	00:01:41.008	BCCH-BCH SystemInfoType7	000000		
000559	12:29:00.152	00:01:44.152	UL-CCCH RRCConnectionRequest	003144		RRC registration
000563	12:29:03.267	00:01:47.267	UL-CCCH RRCConnectionRequest	003115		RRC registration
000567	12:29:03.698	00:01:47.698	DL-CCCH RRCConnectionSetup	000431		
000568	12:29:04.318	00:01:48.318	UL-DCCH RRCConnectionSetupComplete	000620		GPB MM Attach request
000593	12:29:04.679	00:01:48.679	UL-DCCH InitialDirectTransfer	000361		GPB MM Attach request
000594	12:29:04.679	00:01:48.679	DL-DCCH DownlinkDirectTransfer	000000		GPB MM Attach accept
000595	12:29:04.959	00:01:48.959	DL-DCCH DownlinkDirectTransfer	000280		GPB MM Attach accept
000596	12:29:04.959	00:01:48.959	DL-DCCH DownlinkDirectTransfer	000000		GPB MM Attach accept
000607	12:29:04.959	00:01:48.959	UL-DCCH UplinkDirectTransfer	000010		GPB MM Attach complete
000608	12:29:04.959	00:01:48.959	UL-DCCH UplinkDirectTransfer	000000		GPB MM Attach complete
000712	12:29:07.874	00:01:51.874	UL-DCCH UplinkDirectTransfer	002905		GPB SM Activate PDP Context request
000713	12:29:07.874	00:01:51.874	UL-DCCH UplinkDirectTransfer	000000		GPB SM Activate PDP Context request
000714	12:29:08.524	00:01:52.524	DL-DCCH RadioBearerSetup	000650		
000715	12:29:08.565	00:01:52.565	UL-DCCH RadioBearerSetupComplete	000041		
000720	12:29:08.835	00:01:52.835	DL-DCCH MeasurementControl	000270		
000721	12:29:09.055	00:01:53.055	DL-DCCH DownlinkDirectTransfer	000220		
000722	12:29:09.055	00:01:53.055	DL-DCCH DownlinkDirectTransfer	000000		GPB SM Activate PDP Context accept
000726	12:29:09.246	00:01:53.246	UL-DCCH MeasurementReport	000191		GPB SM Activate PDP Context accept
000731	12:29:10.377	00:01:54.377	DL-DCCH RadioBearerReconfiguration	001131		
000741	12:29:11.779	00:01:55.779	UL-DCCH RadioBearerReconfigurationComplete	001402		
000749	12:29:14.233	00:01:58.233	UL-DCCH MeasurementReport	002454		
000769	12:29:19.010	00:02:03.010	UL-DCCH MeasurementReport	004777		
000800	12:29:28.013	00:02:12.013	UL-DCCH MeasurementReport	000903		
000824	12:29:34.061	00:02:18.061	UL-DCCH MeasurementReport	000048		
000845	12:29:40.210	00:02:24.210	UL-DCCH MeasurementReport	008149		
000859	12:29:42.834	00:02:26.834	UL-DCCH UplinkDirectTransfer	002624		GPB SM Deactivate PDP Context request
000860	12:29:42.834	00:02:26.834	UL-DCCH UplinkDirectTransfer	000000		GPB SM Deactivate PDP Context request
000861	12:29:43.264	00:02:27.264	DL-DCCH DownlinkDirectTransfer	000430		GPB SM Deactivate PDP Context accept
000862	12:29:43.264	00:02:27.264	DL-DCCH DownlinkDirectTransfer	000000		GPB SM Deactivate PDP Context accept
000864	12:29:43.284	00:02:27.284	UL-DCCH UplinkDirectTransfer	000620		GPB MM Detach request
000866	12:29:43.284	00:02:27.284	UL-DCCH UplinkDirectTransfer	000000		GPB MM Detach request
000867	12:29:43.465	00:02:27.465	DL-DCCH RadioBearerRelease	000301		GPB MM Detach accept
000872	12:29:43.675	00:02:27.675	DL-DCCH DownlinkDirectTransfer	000190		GPB MM Detach accept
000873	12:29:43.675	00:02:27.675	DL-DCCH DownlinkDirectTransfer	000000		GPB MM Detach accept
000878	12:29:44.937	00:02:28.937	UL-DCCH RadioBearerReleaseComplete	001262		
000879	12:29:45.237	00:02:29.237	DL-DCCH RRCConnectionRelease	000250		
000880	12:29:45.237	00:02:29.237	UL-DCCH RRCConnectionReleaseComplete	000010		
000285	12:28:04.873	GPB MM - DETACH REQUEST	UL-DCCH UplinkDirectTransfer			

UL-DCCH Message

- message: uplinkDirectTransfer

- on\_DomainIdentity, 0: PRC, ps\_domain

GPB Protocol discriminator: GPB Mobility Management. Msg Type: Detach request. Forces to standby: Forces to standby not indicated. Power Off: normal detach, Detach Type: (MS-net: GPB detach) or (net-&gt;MS: re-attach required)

Mobile Identity(0): 244, (1): 24, (2): 144, (3): 75, (4): 55

EI: Radio Cause, P-TMSI Signature 2: 11288539

GPB MM - DETACH REQUEST

Figure 17c